Amendments to and Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A method for correcting pitch allocation in a cochlear implant system comprising:

generating a reference signal;

applying the reference signal to an appropriate electrode of the cochlear implant system;

generating a probe signal having a fixed interval relationship with the reference signal;

applying the probe signal to an appropriate electrode of the cochlear implant system;

shifting the location where the probe signal or reference signal is applied until the two signals match; and

using the location at which the probe signal is applied and the location at which the reference signal is applied when the two signals match to generate a frequency map, said frequency map being usable by the cochlear implant system to thereafter apply stimulus signals to correct locations within the cochlea as a function of pitch;

wherein shifting the location where the probe signal or reference signal is applied comprises using current steering, and

wherein generating a probe signal having a fixed interval relationship with the reference signal comprises generating the probe signal to have an octave relationship with the reference signal.

Claim 2 (original): The method of Claim 1 further including generating additional reference signals and probe signals and determining the respective locations at which the probe signal and reference signals match to augment the frequency map.

Claim 3 (original): The method of Claim 1 further including adjusting the stimulation parameters of the reference and probe signals in order to obtain a best possible match between the two signals, wherein the stimulation parameters include pulse amplitude and pulse width.

Claim 4 (canceled)

Claim 5 (currently amended): The method of ~~Claim 4~~ Claim 1 wherein using current steering comprises using current steering to shift the location of the probe signal while maintaining the location of the reference signal constant.

Claim 6 (currently amended): The method of ~~Claim 4~~ Claim 1 wherein using current steering comprises using current steering to shift the location of the reference signal while maintaining the location of the probe signal constant.

Claim 7 (canceled)

Claim 8 (currently amended): ~~The method of Claim 4~~ A method for correcting pitch allocation in a cochlear implant system comprising:

generating a reference signal;

applying the reference signal to an appropriate electrode of the cochlear implant system;

generating a probe signal having a fixed interval relationship with the reference signal;

applying the probe signal to an appropriate electrode of the cochlear implant system;

shifting the location where the probe signal or reference signal is applied until the two signals match; and

using the location at which the probe signal is applied and the location at which the reference signal is applied when the two signals match to generate a frequency map, said frequency map being usable by the cochlear implant system to thereafter apply stimulus signals to correct locations within the cochlea as a function of pitch;

wherein shifting the location where the probe signal or reference signal is applied comprises using current steering, and

wherein generating a probe signal having a fixed interval relationship with the reference signal comprises generating the probe signal to have a frequency that has a musical scale relationship with the reference signal.

Claim 9 (currently amended): ~~The method of Claim 4~~ A method for correcting pitch allocation in a cochlear implant system comprising:

generating a reference signal;

applying the reference signal to an appropriate electrode of the cochlear implant system;

generating a probe signal having a fixed interval relationship with the reference signal;

applying the probe signal to an appropriate electrode of the cochlear implant system;

shifting the location where the probe signal or reference signal is applied until the two signals match; and

using the location at which the probe signal is applied and the location at which the reference signal is applied when the two signals match to generate a frequency map, said frequency map being usable by the cochlear implant system to thereafter apply stimulus signals to correct locations within the cochlea as a function of pitch;

wherein shifting the location where the probe signal or reference signal is applied comprises using current steering, and

wherein generating a reference signal comprises generating a reference signal selected from the group of signals that comprise a diatonic scale.

Claims 10-12 (canceled)

Claim 13 (currently amended): In a neurostimulation system, a method for correcting frequency allocation comprising

controlling the location where a stimulus is applied, comprising:

shifting the location where the stimulus is applied until a desired criteria is achieved; [[and]]

controlling the temporal waveform structure of the stimulus that is applied; and

applying a reference stimulus and a probe stimulus, and wherein a fixed interval relationship exists between the reference signal and the probe signal; and wherein the desired criteria comprises achieving a match between the reference signal and the probe signal.

wherein the fixed interval relationship between the reference signal and the probe signal comprises an octave relationship wherein the probe signal is one octave above or below the reference signal.

Claim 14-20 (canceled)

Claim 21 (currently amended): A cochlear implant system comprising

an implantable pulse generator;

an electrode array having a multiplicity of electrodes connected to the implantable pulse generator;

means for generating a reference signal;

means for applying the reference signal to an appropriate electrode on the electrode array;

means for generating a probe signal having a fixed interval relationship with the reference signal;

means for applying the probe signal to an appropriate electrode on the electrode array;

means for determining when the probe signal matches the reference signal;

means for shifting the location where the probe signal or reference signal is applied until the two signals match; and

means for generating a frequency map that uses the location at which the probe signal is applied and the location at which the reference signal is applied when the two signals match; and

means for using the frequency map to apply stimulus signals to correct locations within a cochlea as a function of pitch,

wherein the means for generating a probe signal comprises means for generating a probe signal that has an octave relationship with the reference signal.

Claim 22 (original): The cochlear implant system of Claim 21 wherein the means for shifting the location where the probe signal or reference signal is applied comprises current steering means for steering the location where a stimulus is applied to any location along the electrode array.

Claim 23 (canceled)

Claim 24 (currently amended): The cochlear implant system of ~~Claim 23~~ Claim 21 wherein the means for determining when the probe signal matches the reference signal comprises means for recognizing when the probe signal is in tune with the reference signal.

Claim 25-26 (canceled)

Claim 27 (new): The method of Claim 8 further including generating additional reference signals and probe signals and determining the respective locations at which the probe signal and reference signals match to augment the frequency map.

Claim 28 (new): The method of Claim 8 further including adjusting the stimulation parameters of the reference and probe signals in order to obtain a best possible match between the two signals, wherein the stimulation parameters include pulse amplitude and pulse width.

Claim 29 (new): The method of Claim 8 wherein using current steering comprises using current steering to shift the location of the probe signal while maintaining the location of the reference signal constant.

Claim 30 (new): The method of Claim 8 wherein using current steering comprises using current steering to shift the location of the reference signal while maintaining the location of the probe signal constant.

Claim 31 (new): The method of Claim 9 further including generating additional reference signals and probe signals and determining the respective locations at which the probe signal and reference signals match to augment the frequency map.

Claim 32 (new): The method of Claim 9 further including adjusting the stimulation parameters of the reference and probe signals in order to obtain a best possible match between the two signals, wherein the stimulation parameters include pulse amplitude and pulse width.

Claim 33 (new): The method of Claim 9 wherein using current steering comprises using current steering to shift the location of the probe signal while maintaining the location of the reference signal constant.

Claim 34 (new): The method of Claim 9 wherein using current steering comprises using current steering to shift the location of the reference signal while maintaining the location of the probe signal constant.

Claim 35 (new): The method of Claim 13 wherein shifting the location where the probe signal or reference signal is applied comprises using current steering.

Claim 36 (new): The method of Claim 35 wherein using current steering comprises using current steering to shift the location of the probe signal while maintaining the location of the reference signal constant.

Claim 37 (new): The method of Claim 35 wherein using current steering comprises using current steering to shift the location of the reference signal while maintaining the location of the probe signal constant.

Claim 38 (new): The method of Claim 35 further including generating additional reference signals and probe signals and determining the respective locations at which the probe signal and reference signals match to augment the frequency map.

Claim 39 (new): The method of Claim 35 further including adjusting the stimulation parameters of the reference and probe signals in order to obtain a best possible match between the two signals, wherein the stimulation parameters include pulse amplitude and pulse width.